

Tubes for Life



Clinic Guide

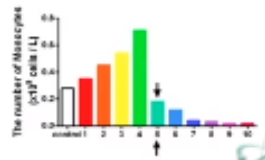
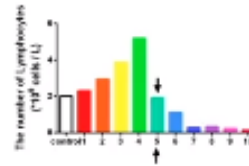
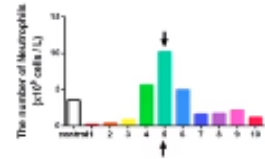
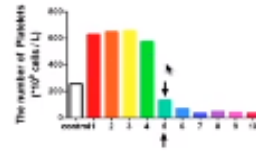
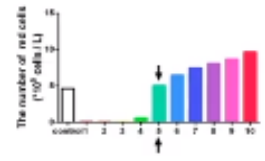
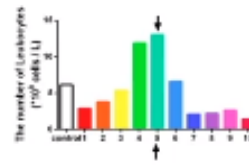
SOLIDPRF



Relative Even
Distribution of
platelets and
leukocytes in upper
layers

Use Blue/White
tubes to delay
clot formation

700 g for 8 min



RICHARD | MIRON

SOLIDPRF

C-PRF

Use Blue/White
tubes to delay
clot formation



700 g for 8 min

Blue/White
tubes for
Concentrated
liquid and
acellular plasma.



1 mL

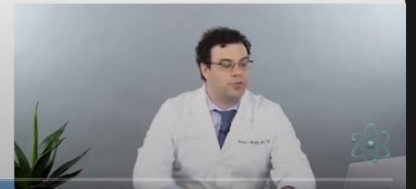
2'000 g for 8 min



RICHARD | MIRON

Removing PRF clots from tubes

1. **Centrifuge 700 RCF for 8 minutes in red tubes**
2. **Remove lid - wait 5 minutes**
3. **Remove from Tube – ready for use**



Making a Bio-Graft

1. **Centrifuge 700 RCF for 8 minutes in white/blue tubes**
2. **Using an 18G 1.5 inch needle, remove the liquid-PRF**
3. **Place immediately in the custom sized tray and let set for 15 minutes**
4. **Bio-Graft ready for use**



Making Sticky Bone

1. Centrifuge **700 RCF** for **8 minutes** using **2 white/blue tubes** and **2-4 red tubes**
2. **Remove lid of red tubes** - wait **5 minutes**
3. **Remove from Tube**
4. **Place in Bio-PRF box** and **compress**
5. **Cut up 2 membranes** in the **Bio-PRF bowl** and **mix** with **allograft**
6. Using an **18G 1.5 inch** needle, remove **liquid-PRF**
7. **Mix the liquid-PRF** with the **bone graft complex** and **allow to set for a few seconds**
8. **Sticky-Bone** ready for use

Making e-PRF membrane

1. Centrifuge **700 RCF** for **8 minutes** in **white/blue tubes**
2. Using an **18G 1.5 inch** needle, remove the **upper 2mL** of **liquid-PPP**
3. **Place the blue caps** on the **syringes** and place in the **Bio-Heat device** for **10 minutes** at **75C**
4. Place the remaining **white/blue tubes** in the **Bio-Cool** to prevent **clotting**
5. After **10 minutes** of **heating**, the **PPP layer** turns into an **“Albumin gel”**
6. Place the **Albumin gel** in the **Bio-Cool** for **1-2 minutes** to **cool**
7. Once **cooled**, place the **albumin gel** into the **custom-sized Bio-Heat tray**
8. **Collect** the remaining **1-2mL** concentrated **Liquid-PRF** layer (**C-PRF**)
9. Place the **Liquid-PRF** layer into the **custom sized-tray** with the **Alb-gel** and let set together for **15 minutes**
10. **e-PRF membrane** ready for use



Making Bio-Bone

1. Centrifuge **700 RCF** for **8 minutes** in **white/blue tubes**
2. Using an **18G 1.5 inch needle**, remove the **upper 2mL** of **liquid-PPP**
3. **Place the blue caps** on the **syringes** and place in the **Bio-Heat device** for **10 minutes** at **75C**
4. Place the remaining **white/blue tubes** in the **Bio-Cool** to prevent **clotting**
5. **After 10 minutes** of **heating**, the **PPP layer** turns into an **“Albumin gel”**
6. Place the **Albumin gel** in the **Bio-Cool** for **1-2 minutes** to **cool**
7. **Once cooled**, place the **albumin gel** into the **custom-sized Bio-Heat tray**
8. **Collect** the remaining **1-2mL** concentrated **Liquid-PRF** layer (**C-PRF**)
9. Place the **Liquid-PRF** layer into the **custom sized-tray** with the **Alb-gel**
10. **Add** a layer of **bone graft** (ideally **allograft**)
11. **Add** additional **Liquid-PRF** and let set
12. **Bio-Bone** ready for use



Making Bio-Filler

1. Centrifuge **700 RCF** for **8 minutes** in **white/blue tubes**
2. Using an **18G 1.5 inch needle**, remove the **upper 2mL** of **liquid-PPP**
3. **Place the blue caps** on the **syringes** and place in the **Bio-Heat device** for **10 minutes** at **75C**
4. Place the remaining **white/blue tubes** in the **Bio-Cool** to prevent **clotting**
5. **After 10 minutes** of **heating**, the **PPP layer** turns into an **“Albumin gel”**
6. Place the **Albumin gel** in the **Bio-Cool** for **1-2 minutes** to **cool**
7. **Collect** the remaining **0.5-1mL** concentrated **Liquid-PRF** layer (**C-PRF**)
8. Using a **female-female luer-lock**, mix the **liquid C-PRF** and the **Albumin gel** together
9. Using a **25-27G needle**, the **Bio-Filler** is then ready for use



Drawing C-PRF

1. **Centrifuge 2000 RCF for 8 minutes in white/blue tubes**
2. **Using an 18G 1.5 inch needle, remove the upper 3-4 mL of liquid-PPP (no cells)**
3. **Discard this upper 3-4 mL**
4. **Collect the remaining 0.5-1mL concentrated liquid-PRF layer (C-PRF)**
5. **Liquid C-PRF ready for use**



3 protocols for Bio-PRF



SOLID PRF



Use Blue/White tubes to delay clot formation

Relative even distribution of platelets and leukocytes in upper layers

Clinical Indications

- Majority of **Dental** Procedures
- Soft** tissue healing around implants
- Cutting of PRF to mix with **bone graft**
- Sinus Grafting**
- GBR** procedures
- Healing of **complex diabetic wounds**

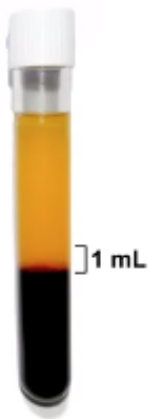
700 g for 8 min



3 protocols for Bio-PRF



C-PRF



Massive cell accumulation at the buffy coat

Clinical Indications

- Filling** Facial Tissues (Esthetics)
- Used as **GBR** membrane with extended working properties of PRF from **2-3 weeks** to **4-6 months**
- Injections** into joint spaces

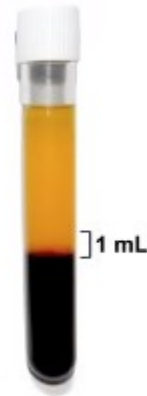
2'000 g for 8 min



SOLID PRF

C-PRF

Use Blue/White tubes to delay clot formation



700 g for 8 min

2'000 g for 8 min

RICHARD | MIRON

	Time	RCF	White / Blue Tubes	Red Tubes	Bio-Heat	
Make PRF Clot	8	700		X		
Make a Bio-Graft	8	700	X			
Making Bio-Bone	8	700	X		Yes	
Making Sticky Bone	8	700	X Draw First	X		
Making e-PRF Membrane	8	700	X		Yes	
Making Bio-Filler	8	700	X		Yes	
Drawing C-PRF	8	2000	X			